

U.S. Patent Application Serial No. 09/895,328
Preliminary Amendment

REMARKS

A. Claims 15-26 are pending in this application. Claims 2-14 have been cancelled without prejudice.

New claims 15-26 have been added to more clearly define the invention, and to recite that the coated core is cured. Support for new claims 15-26 appears throughout the specification, claims, and examples, as originally filed. No new matter has been added.

B. *In the Final Office Action, the Examiner maintains the rejections of claims 2-14 as being unpatentable over Nakane et al., 5,122,418, and further in view of Peterson et al., 6,004,584, or further in view of Kaji JP 11-140819.*

Responsive to Applicant's arguments presented in the Amendment filed on April 16, 2003, the Examiner again states that MPEP 2144.01IV.C. teaches, quoting Ex parte Rubin, 128 USPQ 440 (Bd. App. 1959), that in a process of making a laminated sheet where a base sheet is first coated and thereafter impregnated, was held to render prima facie obvious claims directed to a process of making a laminated sheet by reversing the order of the prior art process steps.

In response to Applicant's arguments that Nakane does not disclose the use of all three elements (core substance, hydroxy apatite, and zinc oxide), the Examiner states that:

- (1) Nakane generally teaches "a composite powder wherein the surface of one powder is substantially covered with another type of coating powder, thereby improving the surface characteristics of the powder, and a production process and use thereof", at col. 1, lines 14-19; and
- (2) that it is reasonable to expect that the process of mixing the three preferred powders of Nakane, which meet the instantly claimed powders, will result in a layered powder as claimed.

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The Examiner also states that Peterson was used only for teaching of powdered compositions for moisture adsorption comprising spherical particles as well as platelet-shaped particles, thus meeting the shape limitation of claim 8, and that Kaji was used for teaching the size and shape of the particles.

Lastly, regarding Applicant's arguments concerning evidence of unexpected results, the Examiner states that the comparative analysis was not persuasive because the analysis compared the composition of Example 1 to the Examples of Nakane. The Examiner states that the analysis did not compare the composition as suggested by the Examiner as making the instant invention, namely hydroxyapatite, zinc oxide, and aluminum hydroxychloride

In view of the following, this rejection is respectfully traversed.

Nakane teaches a composite powder where a core powder is coated with a single coating powder composition using strong compression (Col. 12, line 53). The composite powder produced is then mixed with other elements to form the exemplified cosmetic formulations. See also Col. 12, lines 30-33 and lines 58-63.

Nakane first produces the single coated composite, and then simply admixes the composite with other components to produce the formulation containing the inventive composite. *Nakane* does not teach a multilayered composition, nor forming a multilayered composite by admixing. Accordingly, the Examiner's statement that "it is reasonable to expect ... will result in a layered powder as claimed" is incorrect.

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Nakane teaches at col. 11, lines 18-32, that preferred active deodorizing ingredients for use as the coating powder include zinc oxide, hydroxyapatite and aluminum hydroxychloride, and that they are preferably compounded in the composite in an amount of from 0.1 to 60 wt%. At Col. 5, lines 16-20, *Nakane* teaches that hydroxyapatite is most preferred. At Col. 12, lines 37-39, *Nakane* teaches that the percent by weight of hydroxyapatite to core powder is from 5 to 60 wt%.

However, *Nakane* does not teach or suggest a deodorant composition containing all of the preferred deodorizing ingredients as the coating powder.

Specifically, Examples 29-42 of *Nakane* are directed to deodorant compositions. Examples 29-33 disclose hydroxyapatite as the coating powder and nylon as the core powder. Examples 34-38 disclose zinc oxide as the coating powder and nylon as the core. Example 39 discloses aluminum hydroxychloride as the coating and nylon as the core. Examples 40-42 disclose benzalkonium chloride as the coating powder and polyethylene as the core.

None of the Examples of *Nakane* teach or suggest a deodorant composition containing more than a single preferred powder as the coating composition, let alone a three-layered composition, let alone a core coated with hydroxyapatite and cured, to produce a cured coated core having a zinc oxide layer provided thereon, as presently claimed.

New claim 15 requires a “cured coated core” where the hydroxyapatite is provided on the core to form a coated core and the coated core is cured, to produce the cured coated core. *Nakane* does not disclose a cured coated core or the process of curing, as defined in the present specification.

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Regarding the Examiner's statement that col. 1, lines 14- 19 teach "a composite powder wherein the surface of one powder is substantially covered with another type of coating powder, thereby improving the surface characteristics of the powder, and a production process and use thereof", we note that lines 14-19 have been misquoted.

Lines 14-19 teach "a composite powder wherein the surface of one type of core powder is substantially covered with another type of coating powder, thereby improving the surface characteristics of the powder, and a production process and use thereof." This recitation makes it clear that it is a core that is being coated, and not an arbitrary layer where one layer can be coated with another. *Nakane* does not teach or suggest coating a core with successive layers.

In order to form a stable coated powder, *Nakane* requires dry compressing the core powder and the coating powder. See claim 1; Col. 5, lines 28-36 and 61-62; Col. 8, lines 44-55 (achieving stability without separation); and Col. 12, lines 50-56. *Nakane* teaches a single dry compressing step.

Peterson does not cure the deficiencies of *Nakane*, since *Peterson* also does not teach or suggest a three layered structure where the zinc oxide layer is provided on a cured coated core, as required by the present claims.

Kaji does not cure the deficiencies of *Nakane*, since *Kaji* also does not teach or suggest a three layered structure where the zinc oxide layer is provided on a cured coated core, as required by the present claims.

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Unexpected Results

The Examiner states that the data while showing unexpected results of Example 1, does not show unexpected results of the invention as claimed.

Present Example 1 is commensurate in scope with the present claims. Applicant notes that in Example 1, the component “sericite” is the claimed core substance; that in the reaction, “sodium hydroxide,” “disodium hydrogen phosphate” and “calcium acetate” react to form the claimed hydroxy apatite layer on the core substance; and that after curing, zinc chloride and sodium hydroxide are added to form the claimed zinc oxide layer fixed to the hydroxy apatite layer. Present claim 15 does not require aluminum hydroxychloride.

In short, Example 1 corresponds in scope, to new claim 15. It is noted that the Examiner has stated that “This may show the unexpected results of the instant application’s Example 1 from that ...of Nakane,...”

Examples 29, 23 and 15 of *Nakane* are directed to a deodorant, a sunblock foundation, and a skin treatment powder, respectively. Examples 15 and 29 teach the preferred hydroxyapatite coating powder and Example 23 teaches the preferred zinc oxide coating powder. It is not clear whether the Examiner is stating that the present composition should have been compared to a *Nakane* composition containing all of hydroxyapatite, zinc oxide and aluminum hydroxychloride, as the coating composition.

Nakane does not teach a coating composition containing more than one preferred coating component, in spite of the fact that *Nakane* provides 42 examples. The fact that *Nakane* does not exemplify more than one coating component in the coating composition would lead the skilled

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artisan away from a coating composition containing more than one coating component. Nowhere does *Nakane* teach a coating composition including all of hydroxyapatite, zinc oxide, and aluminum hydroxychloride.

It is submitted that the comparison of Example 1 which is commensurate in scope with present claim 15, with Examples 29, 23 and 15 of *Nakane* is proper, and establishes the unexpected results of the present invention as claimed.

In view of new claims 15-26 and the above arguments, it is submitted that nothing in any of the cited references, taken alone or together, renders the claimed invention obvious within the meaning of 35 U.S.C. §103. Accordingly, the Examiner is respectfully requested to withdrawn this rejection.

In the event that any fees are due in connection with this paper, please charge our Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP



Susanne M. Hopkins
Attorney for Applicant
Reg. No. 33,247

SMH/nrp
Atty. Docket No. **010830**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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